



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,384	07/31/2003	Werner Plass	P2002,0637	9553
7590 08/25/2005				
LERNER AND GREENBERG, P.A.				
POST OFFICE BOX 2480				
HOLLYWOOD, FL 33022-2480				
		EXAMINER		
		SEFER, AHMED N		
		ART UNIT		PAPER NUMBER
		2826		

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,384

Applicant(s)

PLASS ET AL.

Examiner

A. Sefer

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) 10-14 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Minhloan Tran
Minhloan Tran
Primary Examiner
Art Unit 2826

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/29/2005 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueki et al. ("Ueki") USPN 6,483,860 in view of Kinoshita US PG-Pub 2003/0152125 (of record).

Ueki discloses in fig. 1 a surface emitting semiconductor laser chip or VCSEL (as in claim 6), comprising: a semiconductor body (12, 18, 14) having, at least partly, a crystal structure with principal crystal directions or [1 0 0] direction (as in claim 9), a radiation exit face, and side faces (side surfaces of region 12) laterally delimiting said semiconductor body, at least one of said side faces disposed perpendicularly with respect to said radiation exit face, but lacks anticipation at least one of said side faces disposed obliquely with respect to the principal crystal directions.

Art Unit: 2826

Kinoshita discloses (figs. 1-6 and pars. 0063 and 0088) a surface emitting semiconductor laser chip or VCSEL (as in claim 6), comprising: a semiconductor body having, at least partly, a crystal structure with principal crystal directions or $[1\ 0\ 0]$ direction (as in claim 9), a radiation exit face, and side faces 60'/60'' laterally delimiting said semiconductor body, at least one of said side faces disposed obliquely with respect to the principal crystal directions.

Therefore, in view of Kinoshita's teachings, one having an ordinary skill in the art at the time the invention was made would be motivated to modify Ueki by incorporating side face(s) disposed obliquely with respect to the principal crystal directions since that would improve the device oscillation property as taught by Kinoshita.

As for claim 2, Ueki /Kinoshita discloses semiconductor body having a rectangular cross sections disposed parallel to said radiation exit face.

As for claims 3 and 7, Kinoshita discloses in figs. 1B, 2 and 3 a principal crystal directions including a given direction running parallel to said radiation exit face, and at least one of said side faces forms an angle, within the range recited in the claim, with said given direction.

As for claim 4, Ueki discloses a semiconductor body containing a substrate 10 having, at least partly, a crystal structure. Similarly, Kinoshita discloses (see claim 3) a semiconductor body containing a substrate 1 having, at least partly, a crystal structure.

As for claims 5 and 8, Kinoshita/Ueki discloses semiconductor body containing a III-V compound semiconductor or GaAs (as in claim 8).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (571) 272-1921.

Art Unit: 2826

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANS

August 21, 2005